

# Title 24, Part 6 California's Energy Building Code

## Residential and Nonresidential Buildings

**Tav Commins**

**California Energy Commission**

# Buildings That Must Comply

- Residential
  - New buildings
  - Additions & Alterations
- Nonresidential
  - Heating capacity exceeding 10 Btu/(hrxft<sup>2</sup>)
  - Cooling capacity exceeding 5 Btu/(hrxft<sup>2</sup>)
- Nonresidential (must meet Lighting Requirements)
  - Heating capacity less than 10 Btu/(hrxft<sup>2</sup>)
  - Cooling capacity less than 5 Btu/(hr.Xft<sup>2</sup>)

# Building Department Responsibility

## Building Department Responsibility:

- Make sure the correct Forms were submitted
- Verify that the Forms were properly completed
- Have Plan Checkers highlight special energy features for the inspector.

# Enforcement Audits

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- **Monitoring - 1985 to 1995**
- **Plans and Energy Calculations were correct**
- **50% - not installed**
- **25% - less efficient equipment**
- **25% - more efficient**
- **Overall Energy Use - Basically unaffected**

# Commission Assistance

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- Training
- Manuals and Standards
- Hotline
- Web site
- *Blueprint*
- On-line Training Series

# Third Party Inspectors - Residential

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- **AB970 - Effective June 1, 2001**
  - Third party inspectors
  - HVAC Diagnostics
  - Thermostatic Expansion Valves(TXV)
    - Alternative - Verified Air Flow & Refrigerant Charge
  - Certificate of Field Verification and Diagnostic Testing is required for occupancy

# Third Party Inspectors - Nonresidential

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- **Developing Protocols for third party inspection of Nonresidential buildings**
- **Probable Implementation - 2005 Standards**
- **Performance verification**
  - Standard equipment
  - System components of HVAC systems

# Third Party Inspectors - Nonresidential

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- **Performance Verification Methods**
  - Inspection checklists
  - Manual test verification procedures
  - Semi-automated diagnostics
  - Manufacturer-specific self-diagnostics
- **Verification**
  - Design Intent
  - Control Requirements
  - O & M Manuals